



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,526	02/05/2004	N.R. Gandhi	5333	5398
22922 7590 07/07/2008 REINHART BOERNER VAN DEUREN S.C. ATTN: LINDA KASULKE, DOCKET COORDINATOR 1000 NORTH WATER STREET SUITE 2100 MILWAUKEE, WI 53202			EXAMINER CHAWLA, JYOTI	
			ART UNIT 1794	PAPER NUMBER
			MAIL DATE 07/07/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/772,526

Applicant(s)

GANDHI ET AL.

Examiner

JYOTI CHAWLA

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/ are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 5, 2007 has been entered. Claims 1, 3, 5, 6, 11, and 16 have been amended. Claims 1-17 remain pending and are examined.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Rejection of claims 1-3, 5,6 and 11 under 35 U.S.C. 112 as being indefinite for the use of improper Markush-type language has been withdrawn in light of applicant's amendments of November 5, 2007.

Claims 13 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 is indefinite for the recitation of "said thermophilic bacteria" as there is lack of antecedent basis for the recitation. Correction is required.

Claim 16 recites "comprising incorporation of said fermented composition with a fat component sufficient to provide a sour cream." Regarding the rejection of claim 16, under USC 35 112(2), the applicant refers to the claim language as definite by arguing that one of ordinary skill in the art at the time of the invention would be able to determine the sufficient fat component level for sour cream. However, the claim as recited, is still considered indefinite for the purposes of prior art comparison because it

is unclear as to how much fat needs to be in the final fermented soy product of the prior art for it to be classified as soy based sour cream or imitation sour cream. For the purpose of expedited examination a fermented soy product with added fat or oil would be considered relevant prior art. Clarification and /or correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Rejection of claims 1, 2, 4-12 and 14-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Marshall et al. (US 4,678,673) have been withdrawn in light of applicant's amendments dated November 5, 2007.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Determining the scope and contents of the prior art.

Ascertaining the differences between the prior art and the claims at issue.

Resolving the level of ordinary skill in the pertinent art.

Art Unit: 1794

Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The references and rejection are incorporated herein and as cited in the previous office action mailed May 3, 2007.

A) Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marshall (US 4678673) in view of Osaka et al (US 3937843).

Marshall et al, hereinafter Marshall, discloses soy based fermented imitation dairy products with sufficient added fat to make a fermented creamy product, i.e., soy sour cream.

Regarding claims 1, 11, 15, Marshall teaches fermentation of soymilk (aqueous soy composition) to make soy sour cream and yogurt has been known (column 1, lines 9-39). Marshall teaches use of lactobacillus lactis (thermophilic bacteria) to ferment soymilk to produce a fermented product with buttery dairy like flavor with some tartness, i.e., sour cream flavor (Column 2, lines 18-31 and Column 7, lines 1-5). Marshall further teaches heat treatment of the fermented product to inactivate bacteria (Column 5, lines 21-24) as recited by the applicant. Marshall teaches of a product where the fermentation is carried out to a pH of 6-7 (Column 5, lines 1-10). However fermentation of soy products to pH more acidic than the pH taught by Marshall has been known in the art to

Art Unit: 1794

make soy based fermented products that are more sour or acidic. Osaka et al, hereinafter Osaka, teaches of fermentation products of soy. The fermentation of soy as taught by Osaka is carried out in the presence of Lactic acid bacteria, such as, *Lactobacillus bulgaricus* and *Streptococcus thermophilus*, (i.e., hemophilic bacteria) (Column 2, lines 40-68). Osaka further teaches of fermenting the product to varying acidity levels based on the product desired. In an example Osaka teaches of acidity of 3.6 which can be adjusted to a desired level by dilution (Column 6, lines 35-42). Osaka also teaches the adjusted pH of products to a pH of about 6-7.5. Thus the range of pH of the fermented products as taught by Osaka is 3.6 to 7.5, which includes applicant's recited range. Osaka further teaches of a fermentation temperature range of 30°C to 45°C (Column 3, lines 5-10). Thus fermentation of soy using hemophilic bacteria in the temperature range as recited by the applicant (claim 11) and to yield a product with an acidity in the recited range of the applicant (claims 1 and 15) was known at the time of the invention. Further, fermentation of soy milk with bacteria to yield soy dairy products like sour cream were also known at the time of the invention (Marshall, Column 1, lines 28-38). Therefore, to modify Marshall and ferment soy using thermophilic bacteria, in the temperature range as taught by Osaka for a time period to yield an acidic soy product as taught by Osaka, would have been a matter of routine determination by experimentation for one of ordinary skill in the art at the time of the invention. One would have been motivated to modify Marshall and prolong the time of fermentation in order to make a soy product with greater sourness or acidity, such as soy based yogurt product. Thus to ferment soy material for longer period of time or with a higher concentration of bacteria as inoculum or at a slight elevation of temperature would not have made a patentable distinction to the claims, absent any clear and convincing evidence and or arguments to the contrary.

Regarding claim 2, Marshall teaches of soy composition comprising soymilk (Column 2, lines 18-20).

Art Unit: 1794

Regarding claim 3, Marshall teaches of ground soybean aqueous slurry (Column 3, line 52 to Column 4, line 30), i.e., water based slurry of soybean. The reference also teaches that the dry clean soybeans are ground at neutral pH. The soy slurry can be dried, stored and reconstituted to desired solids level, prior to fermentation (Column 4, lines 5-15). Marshall further teaches the addition of food grade acids for flavor, texture etc (Column 3, lines 15-23), as instantly claimed.

Regarding claim 4, Marshall teaches incorporation of a fat component to the soy composition (Column 2, line 60 to Column 3, line 8) and the composition is homogenized at a pressure of 2100 psi (Column 6, lines 41-44), which falls in the recited range of the applicant (i.e., greater than about 2,000 psi).

Regarding claims 5 and 6, Marshall teaches heating of the fermented soy composition for a time and a temperature sufficient to substantially discontinue fermentation and make the composition aseptic (Column 5, lines 21-25) as instantly claimed.

Regarding claim 7, Marshall teaches treating fermented soy composition at a pressure greater than about 2000 psi (Column 6, lines 41-44), as also discussed regarding claim 4.

Regarding claim 8, Marshall teaches dehydration of said fermented soy composition (Column 2, line 56 and Column 5, lines 21-35).

Regarding claim 9, Marshall teaches spray dried fermented soy product (Column 5, lines 21-35 and 58-62) as instantly claimed.

Regarding claim 10, Marshall teaches addition of water to reconstitute said dehydrated soy composition (Column 6, lines 31-45) as instantly claimed.

Regarding claim 11, Marshall teaches a process for preparing a sour cream product using an aqueous soy composition and fermenting it with at least one thermophilic bacterial culture (*Lactobacillus* species) and further incorporating at least one of an oil and a fat component and said fermented soy composition, homogenizing to stabilize the

Art Unit: 1794

composition; and heating to provide a substantially aseptic sour cream product. Other than fermentation temperature range, Claim 11 has same limitations as claim 1, 2 and 4-6, and is rejected for the same reasons as claims 1, 2, 4-6. Regarding temperature of fermentation, Osaka teaches fermentation in the temperature range recited by the applicant (Column 3, lines 5-10). Therefore, claim 11 is rejected for the reasons provided in the rejection above.

Regarding claim 12, Marshall teaches addition of coconut oil and soy oil, i.e., vegetable oil and fat, (Column 3, lines 6, 17-18 and column 6, lines 30-38) as also discussed claim 4.

Regarding claim 13, Marshall teaches of fermentation with *Lactobacillus casei* (Column 2, lines 30-32). However, Osaka teaches that the thermophilic bacteria can be *lactobacillus* genus, *Streptococcus* genus (including *S. thermophilus*) which are added alone or in combination (Column 2, lines 55-68 and Example 2), as instantly claimed. Thus fermentation of soy by a combination of *Lactobacillus* and *Streptococcal* bacteria was known at the time of the invention. Therefore, one of ordinary skill in the art at the time of the invention would have been motivated to modify Marshall based on the teaching of Osaka and use a combination of *Lactobacillus* and *Streptococcal* bacteria as culture to ferment soy, in order to make better fermented soy food with improved flavor.

Regarding claim 14, Marshall teaches addition of a food grade acid to adjust the pH of the fermented soy composition (Column 3, lines 18-22) as recited by the applicant.

Regarding claim 15, Marshall teaches a method of using thermophilic bacterial culture to prepare a acidified whole soy composition with or without an animal sugar by fermenting an aqueous soy composition for a time and at a temperature sufficient to acidify it (Column 2, lines 18-49; Column 3, lines 25- 37 and Column 4). Claim 15 has same limitations as claim 1 and is rejected for the same reasons in the office action above.

Art Unit: 1794

Regarding claim 16, Marshall teaches a fermented soy composition with a fat component between 10-40% and Table I, shows proximate analysis of dried soy product with a fat content of 24.6 %, both are sufficient to provide a sour cream (Column 2, lines 65 to Column 3, line 8; Column 4, lines 15-28 table) as recited by the applicant.

Regarding claim 17, Marshall teaches dehydrating the fermented soy composition (Column 2, line 56 and Column 5, lines 21-35) as discussed above regarding claim 8.

Naming a product "soy sour cream" does not involve an inventive step, and does not provide patentable distinction to the claims. Thus, the claimed invention is unpatentable over Marshall in view of Osaka, absent any clear and convincing evidence and/or arguments to the contrary.

(B) Rejection of claims 3 and 13 under 35 U.S.C. 103(a) as being unpatentable over Marshall in view of Tsumura has been withdrawn in light of applicant's amendments.

Response to Arguments

Applicant's arguments filed November 5, 2007 have been fully considered but they are moot in view of new grounds of rejection.

Applicant's arguments regarding the rejections under 35 U.S.C. 112(2) have been considered and have been responded in the office action above.

Claims 1-17 have been rejected for the reasons of record.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JYOTI CHAWLA whose telephone number is (571)272-8212. The examiner can normally be reached on 9:00 am to 5:30 pm.

Art Unit: 1794

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jyoti Chawla
Examiner
Art Unit 1794



KEITH D. HENDRICKS
SUPERVISORY PATENT EXAMINER